

Having thus described the preferred embodiments, the invention is now claimed to be:

1. A corner bracket assembly for use in an associated frame assembly comprising:

a body;

a first leg extending from the body and adapted to be connected to a first frame member of the associated frame assembly;

a second leg extending from the body in a direction approximately normal to the first leg and adapted to be connected to a second frame member of the associated frame assembly; and

a roller assembly adjustably secured within at least one of the body, the first leg, and the second leg, and capable of protruding outward a selected distance relative to at least one of the body, the first leg, and the second leg, wherein the roller assembly comprises:

a roller housing slidably mounted in at least one of the body, the first leg and the second leg;

a roller element rotatably mounted in the roller housing;

a threaded member defined within the roller housing; and

a fastener having a threaded portion engaged in the threaded member and a head portion extending away from the roller housing.

2. The corner bracket assembly of claim 1 further comprising a groove defined in one of the roller housing and at least one of the body, the first leg, and the second leg and a rib defined in another of said roller housing and at least one of the body, the first leg and the second leg, the groove and the rib cooperating to define an axis of movement of the roller housing in relation to the body.

3. The corner bracket assembly of claim 2 wherein the roller housing includes opposed grooves for engaging corresponding opposed ridges protruding from interior surfaces of at least one of the body, the first leg, and the second leg to guide the roller assembly during movement.

4. The corner bracket assembly of claim 1 wherein the roller housing fastener head portion is accessible through an opening defined in at least one of the body, the first leg, and the second leg.

5. The corner bracket assembly of claim 1 wherein the roller assembly is positioned at an angle relative to the body such that the roller protrudes outward of the first leg and a side of the body adjacent the first leg, and wherein the fastener is accessible on a side of the body adjacent the second leg.

6. The corner bracket assembly of claim 2 wherein a slot extends between an opening located on an end

surface of the second leg, longitudinally through the second leg and the body, to another opening located on a side surface of the body located adjacent the first leg.

7. The corner bracket assembly of claim 2 wherein the groove and the rib cooperate to mount the roller housing assembly in the at least one of the body, the first leg and the second leg so as to resist forces acting thereon.

8. A corner fastener for use in forming an associated frame assembly by interconnecting at a predetermined angle elongated tubular members of the associated frame assembly, the tubular members having a hollow internal space of a predetermined cross sectional area, the corner fastener comprising:

a pair of legs oriented at such predetermined angle with respect to each other and connected to a junction member, each of the legs being adapted for disposition within the interior of a respective one of the associated elongated tubular members and being of such a cross sectional area so as to substantially and securely fill the internal space of the elongated tubular members, the junction member being of such configuration as to be contiguous with the outer walls of the tubular members; and

an adjustable roller device slidably mounted in the junction member in order to move along a track defined between the junction member and the roller device, the roller device being selectively moveable to positions

between a first protruding position and a second retracted position.

9. The corner fastener of claim 8 wherein the adjustable roller device comprises a roller housing which rotatably secures a roller, the roller housing being received within at least one of the junction member and the pair of legs.

10. The corner fastener of claim 9 wherein the roller housing includes one of grooves and ribs for engagement with a cooperating one of grooves and ribs defined in the at least one of the junction member and the pair of legs.

11. The corner fastener of claim 8 wherein the adjustable roller device is movable in relation to the junction member by a threaded fastener, the threaded fastener being in threaded engagement with the roller device and constrained from transverse movement by the junction member, upon rotation of the threaded fastener.

12. The corner fastener of claim 8 wherein at least one of the junction member and the pair of legs includes protrusions for guiding the roller device during its movement.

13. A corner bracket assembly for use in an associated movable frame assembly comprising:

a first housing piece having upstanding coupling pins;

a second housing piece having receiving pockets for connecting engagement with the coupling pins and defining a cavity therebetween;

a roller assembly received within the cavity, the roller assembly including a roller housing, a threaded engaging portion defined in the roller housing, and a roller rotatably mounted within the roller housing;

a threaded fastener rotatably mounted between the first and second housing pieces and in threaded engagement with the roller assembly; and

a track defined between the first and second housing pieces and the roller assembly for linearly adjusting a position of the roller assembly in relation to the first and second housing pieces.

14. The corner bracket assembly of claim 13 wherein the threaded engagement portion comprises a threaded nut mounted in the roller housing.

15. The corner bracket assembly of claim 13 wherein the track includes guide members mounted on at least on of the first and second housing pieces and the roller assembly and protruding into the cavity for engagement with grooves defined on another of the first and second housing pieces and the roller housing, the guide members and grooves defining the track along which the roller assembly moves.

16. The corner bracket assembly of claim 13 wherein the first and second housing pieces together define an opening to the cavity through which the threaded fastener is accessible for rotation.

17. The corner bracket assembly of claim 13 wherein the roller housing comprises:

a first roller housing member having a first side wall, a plurality of connecting walls extending upwardly from the first side wall, a plurality of coupling pins, a first roller recess, and a first mounting area for a threaded engaging portion for the threaded fastener;

a second housing member having second side wall in abutting contact with the plurality of connecting walls of the first side wall, a second receiving area for the threaded engaging portion, a second roller recess, and a plurality of receiving pockets for engaging the coupling pins of the first side wall; and

wherein the first and second receiving areas mount the threaded engaging portion and the first and second roller recesses receive respective ends of an axle of a roller for rotatably supporting the roller.

18. The corner bracket assembly of claim 13 wherein the first and second housing pieces together define a channel through the cavity.

19. The corner bracket assembly of claim 18 wherein the second housing piece includes a pair of opposing notches and a pair of channel walls extending into the

cavity from the second housing piece, the notches combine with the first housing piece to define recesses into the cavity.

20. The corner bracket assembly of claim 19 wherein the first housing piece includes a plurality of channel supports extending into the cavity from the first housing piece along the length of the channel.

21. A corner roller arrangement for each of the corners of a sliding panel of the type including a pair of parallel, elongated spaced side members defining the length of the panel and top and bottom members defining the width of the panel, said corner roller arrangement comprising:

a corner member including a frame and corner keys integral therewith, the corner keys fitting into the side, top and bottom panel members whereby said panel members abut the corner member frame for providing a rigid panel frame, the corner member frame having a first side and a second side, the first and second sides being in substantially parallel spaced relation;

a roller housing rotatably supports a roller and is displaceably disposed within the corner member frame between the first and second corner member frame sides, the roller housing being selectively moveable to positions between a first protruding position and a second retracted position along a track defined by engaging components of at least one of the roller housing, the first side, and the second side.

22. The corner roller arrangement of claim 21 wherein the engaging components comprise grooves and corresponding ribs.

23. The corner roller arrangement of claim 21 further comprising a threaded member threadingly engaged with the roller housing wherein rotation of the threaded member selectively moves the roller housing between the first and second positions.

24. A corner bracket and roller assembly for a sliding panel comprising:

a corner bracket having integral first and second arms extending at approximately right angles and adapted for insertion into associated frame members of an associated panel, the first arm having an aperture in the bottom edge thereof; and

a roller assembly disposed within the corner bracket comprising

a housing,

a roller rotatably secured within the housing,  
and

an adjusting means for moving the roller assembly along a linear path relative to the corner bracket, the path including a first position wherein the roller assembly protrudes through the aperture and a second position wherein the roller assembly recedes within the aperture, said path being defined by at least one groove and rib engagement.



25. The corner bracket and roller assembly of claim 24 wherein the at least one groove and rib engagement comprises at least one groove defined in one of the roller housing assembly and the corner bracket and at least one corresponding rib defined in another of the roller housing assembly and the corner bracket, the groove and corresponding rib cooperating to define an axis of movement of the roller housing in relation the corner bracket.